

Thank you for your comment, Miranda Gray.

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Solar Energy Development PEIS
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Attachment: Solar Energy PEIS_New Mexico Wilderness Alliance.pdf

Comment Submitted:

September 14th, 2009

Delivered via electronic mail (through the project website) and U.S. mail (with attachments)

Solar Energy PEIS – Solar Energy Study Areas
Argonne National Laboratory
9700 S. Cass Avenue
EVS/900
Argonne, IL 60439

New Mexico Wilderness Alliance Scoping Comments on the Solar Energy Study Areas for the Solar PEIS

(New Mexico Analysis)

Thank you for the opportunity to comment on the Solar Energy Study Area PEIS.

Accompanying these comments are two additional items. The first is a viewshed analysis performed for each of the three SESAs, to illustrate how solar development would impact the scenic value of wilderness quality lands. To assess the visibility from New Mexico Wilderness Alliance BLM Citizens' Inventory Units and WSAs, a grid of 16 equally spaced observation points was placed over the SESAs. Using GIS, the observation points were calculated as either visible or non-visible from the surrounding terrain. If 9 or more observation points (1/2 of the SSA) were visible from a given point, we considered the Solar Study Area "highly visible". The second item included is a portion of the NMWA BLM Citizens' Inventory document, to give an idea of the land that immediately surrounds the SESAs. These include the Robledo Mountains – Sierra de las Uvas Complex (immediately north of the Mason Draw unit), the Greater Potrillos Complex (southwest of the Afton unit), and the Sacramento Mountains Complex (East of the Red Sand Unit).

The New Mexico Wilderness Alliance strongly supports the comments submitted by our colleagues, Defenders of Wildlife, relative to this PEIS and request that our submission be considered an additional voice for those issues. We also endorse the Las Cruces field office recommendation to drop both the Mason Draw and Red Sand SESAs from consideration, to avoid conflicts with high quality Chihuahuan desert grassland, habitat management areas for pronghorn and mule deer, and cultural resources.

Additionally, we are concerned that activities of this type and scope have never been accommodated on the proposed areas and present a number of issues which should be addressed.

1. In developing any new facility there can be unintended consequences which only become evident during and/or after construction or operation occur. Accordingly, we recommend that a comprehensive monitoring protocol be established by BLM and monitored by an independent contractor paid for by the permittee and hired by the BLM. Monitoring reports should be published quarterly in the Federal Register and in public media within 100 miles of the monitored facility. This monitoring procedure should be financially supported by the permittee for the duration of the enterprise.

2. The installation of solar facilities will alter the ground level thermal environment and may adversely affect organisms which may be living at or near their thermal thresholds. Monitoring efforts should include an element addressing this concern.

3. The installation of solar facilities will alter the wind patterns on and adjacent to the sites and may adversely affect organisms which depend on the dynamics of wind. Monitoring efforts should include an element addressing this concern.

4. The size of the permit areas on which these projects are to occur should be limited to only what is necessary to provide the solar footprint for producing the energy cited in the proposal. An established set of guidelines for this purpose should be included in the PEIS which identifies solar insolation values per acre for a given area and recommends a permit area commensurate with the permittee proposal. We are concerned for example that Iberdrola Renewables has an application for 24,000 acres but, according to the company, would only require about half that area. (Reference www.elpasotimes.com/ci_13185212?source=email)

5. Where there are permit areas adjacent or proximate to existing wildernesses, WSAs or other significant public attractions, the PEIS must include an analysis and identification of the viewshed within these special area designations and require that solar projects allow no visual impairment to occur. As proposed, the Afton and Mason Draw are sandwiched between 559,021 acres of wilderness quality lands, including 227,946 acres of BLM WSAs. The accompanying map shows the visual impact to the wilderness quality lands if development were to occur in the Solar Study Areas. According to the BLM Scoping Report for the TriCounty Resource Management Plans and Environmental Impact Statement, Visual Resource Issues To Be Used in the Development and Analysis of EIS Alternatives will include:

- Establishing a clear management direction describing areas inventoried and possessing high scenic importance including:
 - Lands proposed for wilderness designation or with wilderness characteristics should be managed as VRM Class I to “preserve the existing character of the landscape.”
- Manage the following lands proposed for special designation for VRM Class I:

Robledo Mountains – Sierra de las Uvas

- Manage the following lands proposed for special designation for VRM Class II:

Greater West Potrillo Mountains Desert Plains
East Potrillo Mountain

According to ***Objectives for Visual Resource Classes (BLM Manual H-8410-1)***, under Class I “The level of change to the characteristic landscape should be very low and must not attract attention. It would be very difficult to get a new project approved in this class, unless it is completely shielded from view.” Under Class II “Management activities may be seen, but should not attract the attention of the casual observer. New projects can be approved if they blend in with the existing surroundings and don’t attract attention (i.e., small-scale picnic area or primitive campground in valley shielded from view that blends with natural appearance).”

The Afton Solar Study Area is highly visible from the Robledo Mountains, the East Potrillo Mountains, and the West Potrillo Mountains Desert Plains.

The Mason Draw Unit actually intersects 830 acres of land with wilderness characteristics, immediately surrounding the Sierra de las Uvas. This unit is highly visible from the southern portion of the Sierra de Las Uvas.

The Red Sand Unit is highly visible from the Sacramento Escarpment, which includes eight NMWA BLM Citizens’ inventory units.

6. The PEIS should require a schedule of water use per Kwh, identification of a state certified water source and an approved water recycling program.

7. A site restoration bond should be maintained by the permittee for the term of the permit guaranteeing restoration of the site in the event the project is terminated for any reason.

8. The PEIS should include a provision limiting the use of the project areas specifically to solar energy activities only. No commercial quarry, mining, or other enterprise should be allowed. We note that Jetstream Wind of Santa Fe proposes to start construction of a 10 megawatt hydrogen plant and solar panel project which would produce liquid and gaseous hydrogen as well as electricity. This portends a circumstance by which commercial enterprises could use this process to inexpensively gain use of federal property to conduct commercial business.

9. The PEIS should identify issues related to the development of solar sites such as subsequent development needed to support solar sites including new transmission

corridors, upgrades to existing transmission lines, road construction, water resource development, and other possible physical, biological and social cumulative impacts.

10. Because of the proximity of the Red Sand unit to an internationally known National Park Unit, White Sands National Monument, we recommend at minimum redrawing the northern boundary to where it is below the southern boundary of White Sands. If White Sands is to ever expand, this would allow for potential land exchange with the BLM and expansion of the Monument to the east.

11. Of the “BLM lands being analyzed for Solar Development in PEIS” we would like to address the western portion of Otero Mesa. Otero Mesa contains the largest remaining intact expanse of Chihuahuan desert grassland left on public land today. This area supports over 1,000 native wildlife species, including black-tailed prairie dogs, desert mule deer, mountain lions, golden and bald eagles, over 250 species of songbirds, and boasts the state’s healthiest and only genetically pure herd of pronghorn antelope. Furthermore, there is evidence that the Salt Basin aquifer, which originates in Otero Mesa and travels south into Texas, is the largest untapped fresh water resource remaining in New Mexico. We have identified more than 500,000 acres of wilderness suitable land on Otero Mesa. Industrial scale solar development would undoubtedly compromise the integrity of this grassland system, and we recommend these areas not be analyzed for Solar Development in the PEIS.

(See Attached Documents Below)

Thank you for your consideration of these comments.

Sincerely,

Miranda Gray

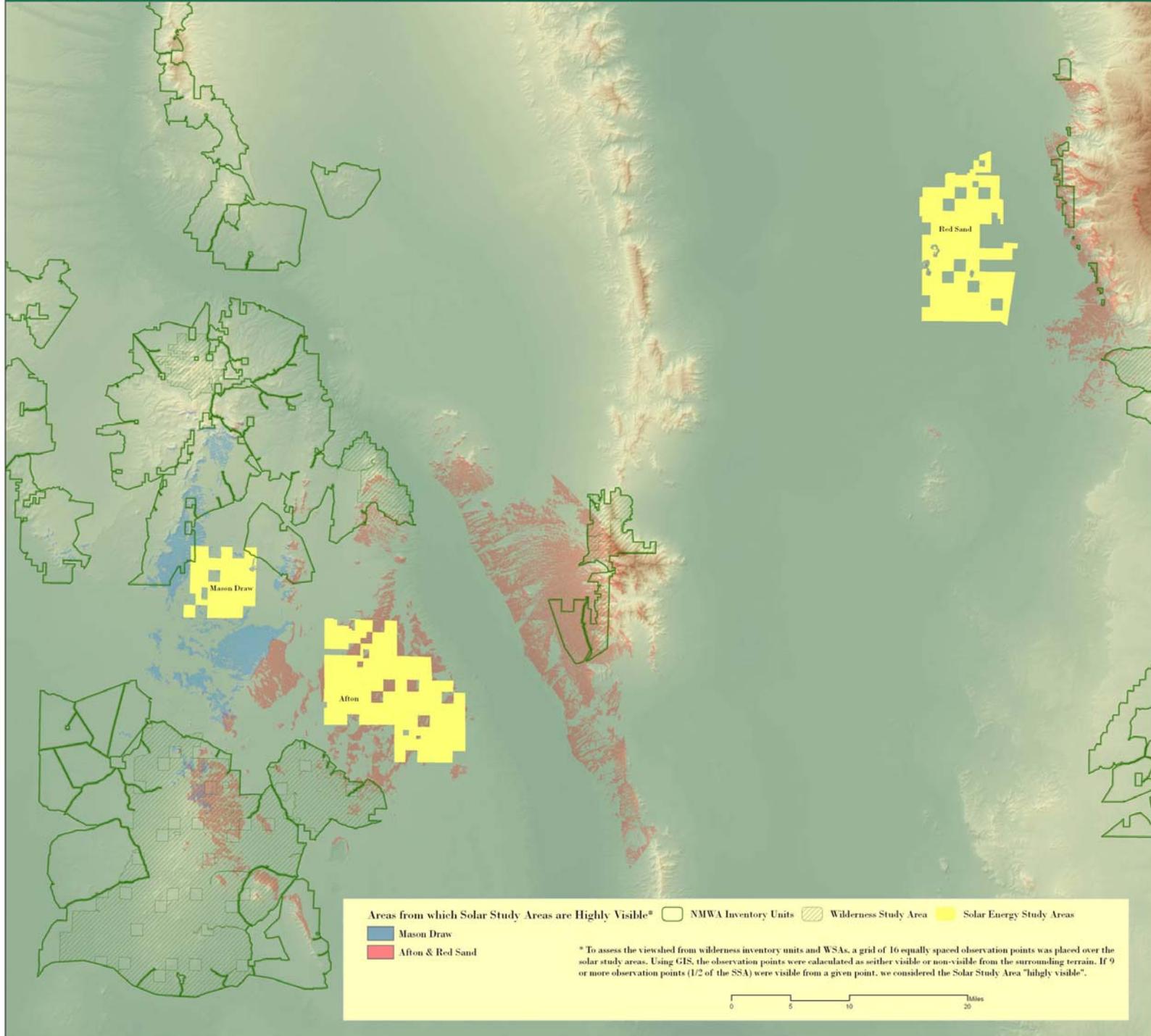
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BLM Solar Study Areas - Visibility from Wilderness Inventory Units and WSAs

To accompany scoping comments on the Solar Energy Study Areas for the Solar PEIS, submitted by the New Mexico Wilderness Alliance, September 14, 2009



The Chihuahuan Desert Region

In New Mexico, the Chihuahuan Desert region is found throughout the south-central and southeastern part of the state, with finger-like extensions protruding north up the Rio Grande and Pecos River valleys into the central part of the state. New Mexico represents the northern portion of the Chihuahuan Desert, which extends south through west Texas and deep into Mexico. This desert is one of the most biologically rich and diverse ecoregions in the world (Olson and Dinerstein 1998).

The northern portion of the Chihuahuan Desert is a dry grassland ecosystem dominated by shrubs and native grasses. Yet the region contains a variety of other geographic and habitat



types. Several mountain ranges rise dramatically from the desert floor and act as 'sky islands' similar to the adjacent Sky Island region of southwestern New Mexico. This landscape diversity also includes unique low-elevation mountains, mesas, hills, and canyons; volcanic features such as lava flows, craters, and cinder cones; and freshwater environments such as playas, streams, and springs. The wild lands described here represent this mix of landscape types, encompassing shrub covered desert, vast grasslands, riparian areas, oak, juniper, and pinyon woodlands, and even sheltered Ponderosa Pine forests.

Cacti, yucca, and agave are common plants of the region. In fact, this desert is especially known for having high cacti diversity and endemism. Similarly, grasses, euphorbs, asters, and legumes also demonstrate this same trait. The plant diversity of this region in turn supports a high variety of invertebrate and reptile species. Mammals in the area include pronghorn, deer, javelina, bobcat, and coyotes, as well as some rare species such as desert bighorn sheep and prairie dogs. Numerous migrating and

resident birds use the region, including the rare Aplomado falcon. The freshwater biota of the ecoregion is considered some of the most unique in the world because of its complexity and high level of endemism.

In addition to their unique geographical and ecological characteristics, the wild lands described here also have all the characteristics of wilderness as outlined in the Wilderness Act. These areas also serve as buffers around existing conserved areas and as linkages with other wildlands in the region.

Protection of these lands is crucial for maintaining diverse communities of plants and animals, watershed functions, wildlife habitat and travel corridors, and open spaces for human use. Wilderness designations will ensure that these lands maintain these important functions.

Greater Potrillo Mountains Complex



Area Description

The Greater Potrillo Mountains Complex is located approximately 30 miles southwest of Las Cruces adjacent to the border with Mexico. The West Potrillo Mountains are the focal point of this area, which is one of the largest relatively undisturbed stretches of Chihuahuan Desert landscape in New Mexico. The area also includes the Aden Lava Flow, Mount Riley, Cox Peak, Eagle Nest, Indian Basin, and the East Potrillo Mountains. This landscape is a broad volcanic field encompassing hundreds of

cinder cones, large craters, and the shield volcano of Aden Crater that produced extensive lava flows over 10,000 years ago. Mount Riley is the highest point in the region, rising abruptly over 1,700 feet above the surrounding desert plain to an elevation of nearly 6,000 feet. Ephemeral lakes are found in Indian Basin. In addition, the area is made up of isolated intrusive peaks like Eagle Nest, steep sedimentary mountains like the East Potrillo Mountains, sand dunes, and expansive, relatively level plains.



Ecological Values

Chihuahuan Desert grassland and yucca, in association with a mosaic of other desert shrubs such as creosote, acacia, and mesquite, make up the majority of the plant cover in the area. Isolated clumps of netleaf hackberry and other desert trees are found in the lava flow where depressions or deeper pockets of soil hold extra water after rainfall. Occasional juniper trees are also found on mountain slopes and in larger drainages. The limestone substrate of the East Potrillo Mountains provides habitat for a wide diversity of cacti, and sandy areas likely contain populations of the State-endangered sand prickley pear, *Opuntia arenaria*, a BLM special status species. The late summer rains bring extensive stands of wildflowers in this area including white and yellow desert zinnias, desert



marigolds, blackfoot daisies, globe mallow, pepperweed, desert sunflowers, Chihuahuan flax, and summer poppy. In one of the large basins in the center of the West Potrillo Mountains, there is a unique 'cholla savannah' vegetation type with large 8 to 10 foot tall cholla trees evenly spaced amongst the grasses. Unusually large specimens of barrel cactus are also found in this area.

Protection of large natural areas is particularly important for long-term preservation of biological diversity. Each unit is an important component in the larger complex of wildlands in the greater Potrillo Mountains area. This area's proximity to northern Mexico adds to its ecological significance. Like the Peloncillo and Big Hatchet Mountains to the west, the Greater Potrillo Mountains Complex forms a biotic link between species in northern Mexico and those in the southwestern United States.

The area's naturalness and large size also contributes to its significance for wildlife. Raptors are common, especially during the winter. Golden eagles, great-horned owls, and Swainson's hawks nest here, and peregrine falcons have also been reported. Extensive grasslands in the



area provide important habitat for grassland birds that have declined in recent years. This includes potential habitat for Aplomado falcons. Other species that forage and live in the area include pronghorn, mule deer, quail, jackrabbits, and occasional migrating ducks on ephemeral ponds. A high diversity of bats are found in the complex, and melanistic forms of mammals and reptiles occur on the lava flows. The Great Plains narrow-mouth toad has been reported immediately to the south of the West Potrillos and can be expected to occur here. A rare mollusk is also found in the area.



Lava flows, craters, and cinder cones evoke a primeval, “moonscape” image for visitors. The shapes and forms of the lava rock are interesting, especially when juxtaposed to the varied forms of the desert vegetation found here. The Aden Lava Flow contains pressure ridges, lava tubes, and crevices up to 5 feet wide and 20-30 feet deep. In contrast, rounded, grass-covered hills in the complex add a hint of softness to the rugged landscape. These features provide excellent opportunities for photography and geological sightseeing.

Scenic and Recreational Qualities

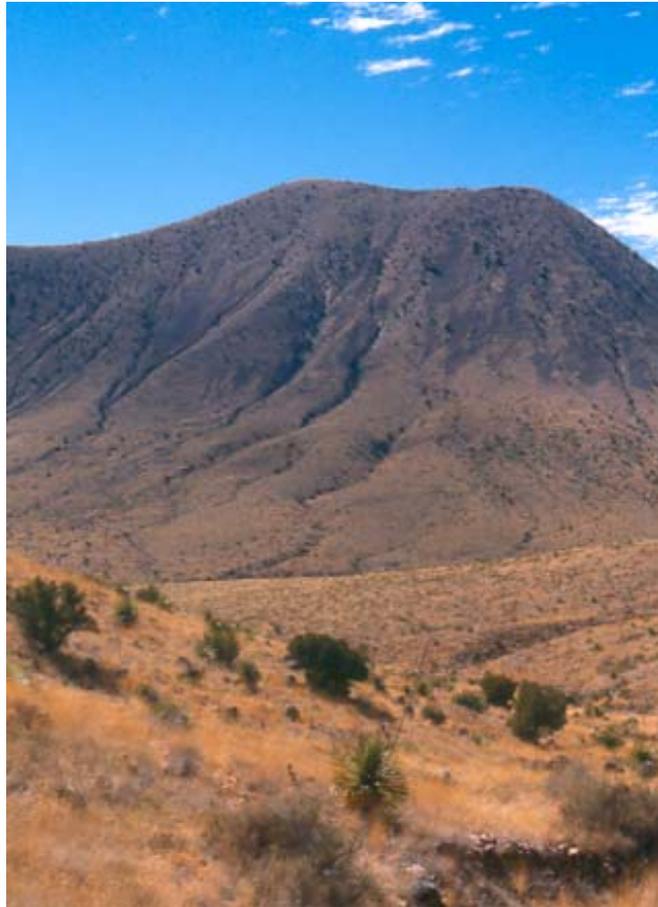
Although this complex is located near a bi-national metro-plex of more than 2.5 million residents, the Greater Potrillo Mountains area appears very natural, maintaining its wild beauty. Due to the rugged terrain and lack of water, many areas are inaccessible to cattle and largely ungrazed, adding to the scenic quality.



Although less than an hour’s drive from either Las Cruces or El Paso, most of the area receives little visitor use. This is an excellent area to explore if one desires to avoid contact with others. The area does not have any maintained trails, making cross-country travel for horseback riders, hikers, backpackers a very primitive experience. Isolated mountains, like Mount Riley and Cox Peak’s, rise abruptly from the desert floor and make excellent day hikes. These seldom traveled peaks remind the visitor of the true remoteness and isolation of the area.

As one gains elevation, range after range appears on the horizon, jutting up out of vast valleys in the distance. This gives not only a sense of immense space, but also a visual connection between the region's of southwest New Mexico and northern Mexico, which lies only a few short miles to the south. Additional recreational opportunities include botanical study in the East Potrillo Mountains and excellent quail hunting throughout the area.

As nearby urban populations rapidly expand, nearby wild areas assume an even greater importance. The Greater Potrillo Mountains Complex provides these urban dwellers with primitive recreational opportunities that, in many places in the southwest, no longer exist due to urban sprawl into once wild areas. The primeval nature of the complex provides visitors with a wilderness experience and primitive recreational opportunities of the highest order.





Special Management Areas

Three Wilderness Study Areas (WSAs) are located in this complex: Aden Lava Flow, Mount Riley, and West Potrillo Mountains. The West Potrillo Mountains is the largest BLM WSA in New Mexico. The Aden Lava Flow Research Natural Area (RNA) is also located here. The RNA was designated in 1978 to preserve the unique geological and biological phenomena associated with the Aden Lava Flow and to provide research and educational opportunities. A portion of the area also falls within the West Potrillo Habitat Management Plan Area managed to improve habitat for deer and upland game.

Cultural Values

Evidence of pre-Columbian Indian habitation exists in caves in the East

Potrillo Mountains. A Classic Mimbres Pueblo located in the region has the highest concentration of bird bones of any known Mimbres site. Several undisturbed El Paso Phase structures have also been found in the West Potrillo Mountains.

Access Information

The south part of the Greater Potrillo Mountains complex is easily reached by Highway 9 that goes from Santa Teresa to Columbus along the border with Mexico. From I-10 exit #8 in Texas, head west toward the border crossing on Highway 136. Just north of the border, about 9½ miles southwest of the interstate exit, turn west on Highway 9. In 16½ miles, CR A008 comes in on the north. This road forms the eastern boundary of the East Potrillo Mountains unit.



About 8 miles further west on Highway 9 from the intersection of CR A008, CR A005 comes in on the north side of the road.

Approximately 4½ miles north of Highway 9, CR A007 intersects CR A005 from the east. This road heads to the northeast and forms the eastern boundary of Mount Riley and eventually accesses the southern end of the Aden Lava Flow unit (consult a detailed map before attempting to drive this route). From the intersection of CR A007 and CR A005, CR A005 continues north in between the Mount Riley unit on the east and the West Potrillo Mountains on the west. The southwest part of the West Potrillo Mountains is reached by continuing west on Highway 9 from the intersection of CR A005.

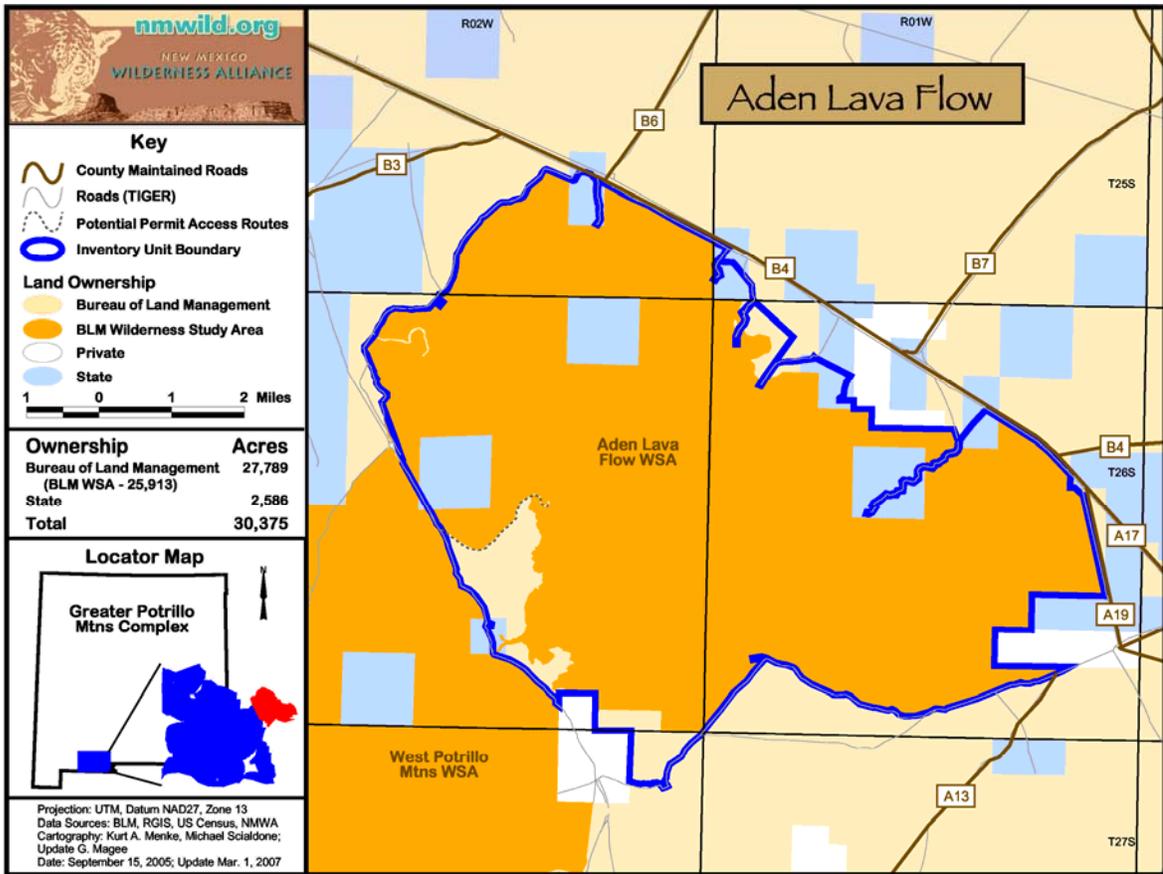
To get to the northeast part of the West Potrillo Mountains and the northwest part of Aden Lava Flow, take the Corralitos Ranch exit #127 off of I-10, about 15 miles west of Las Cruces. From the south side of the interstate, head west on CR B005, which also parallels the

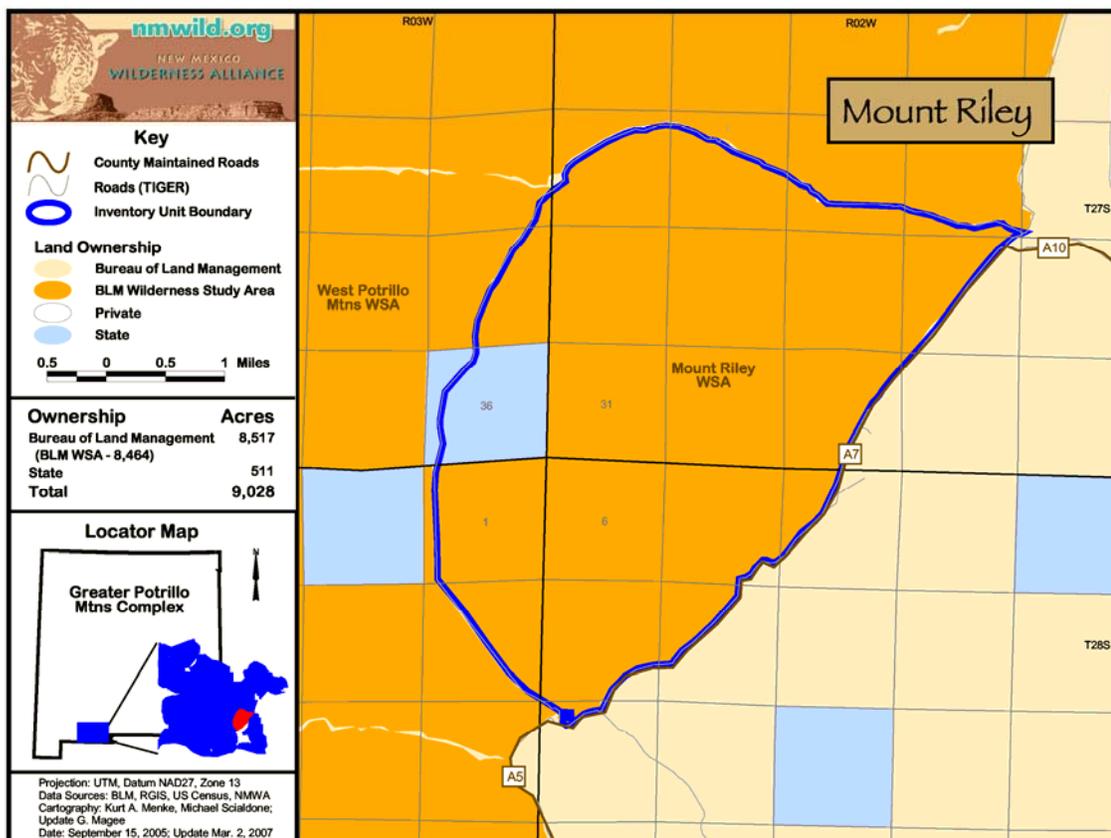
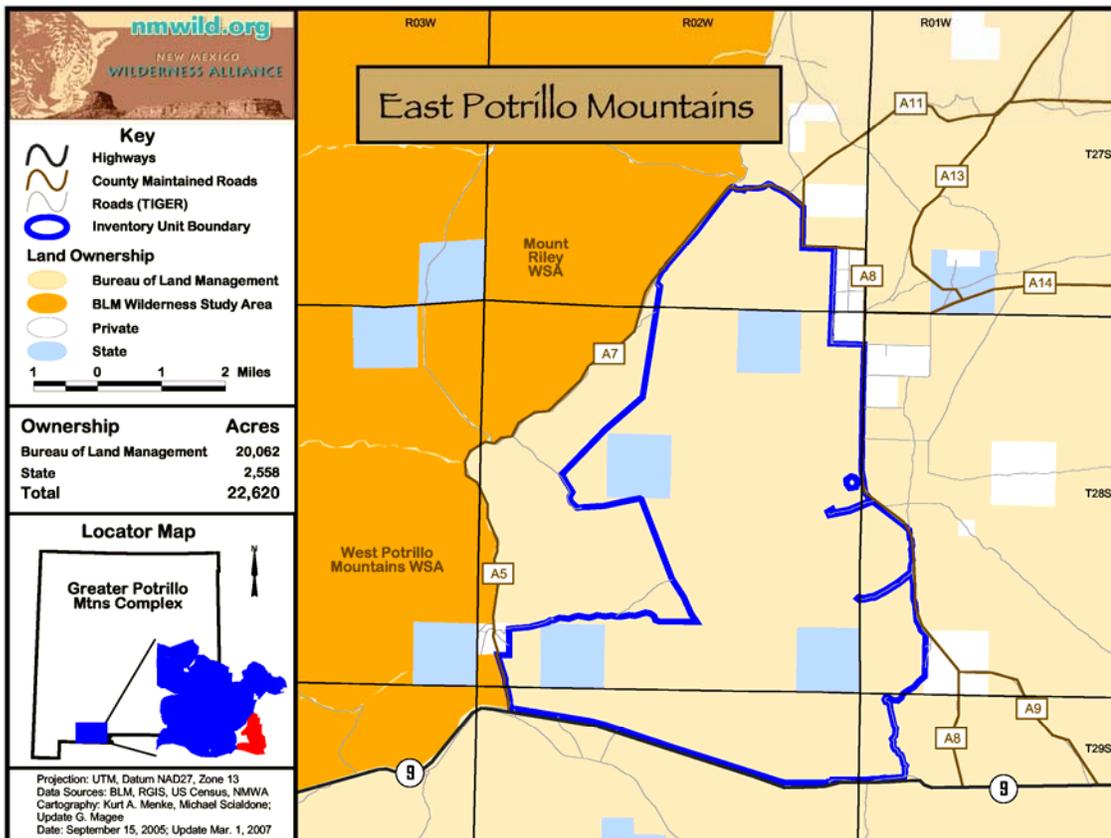


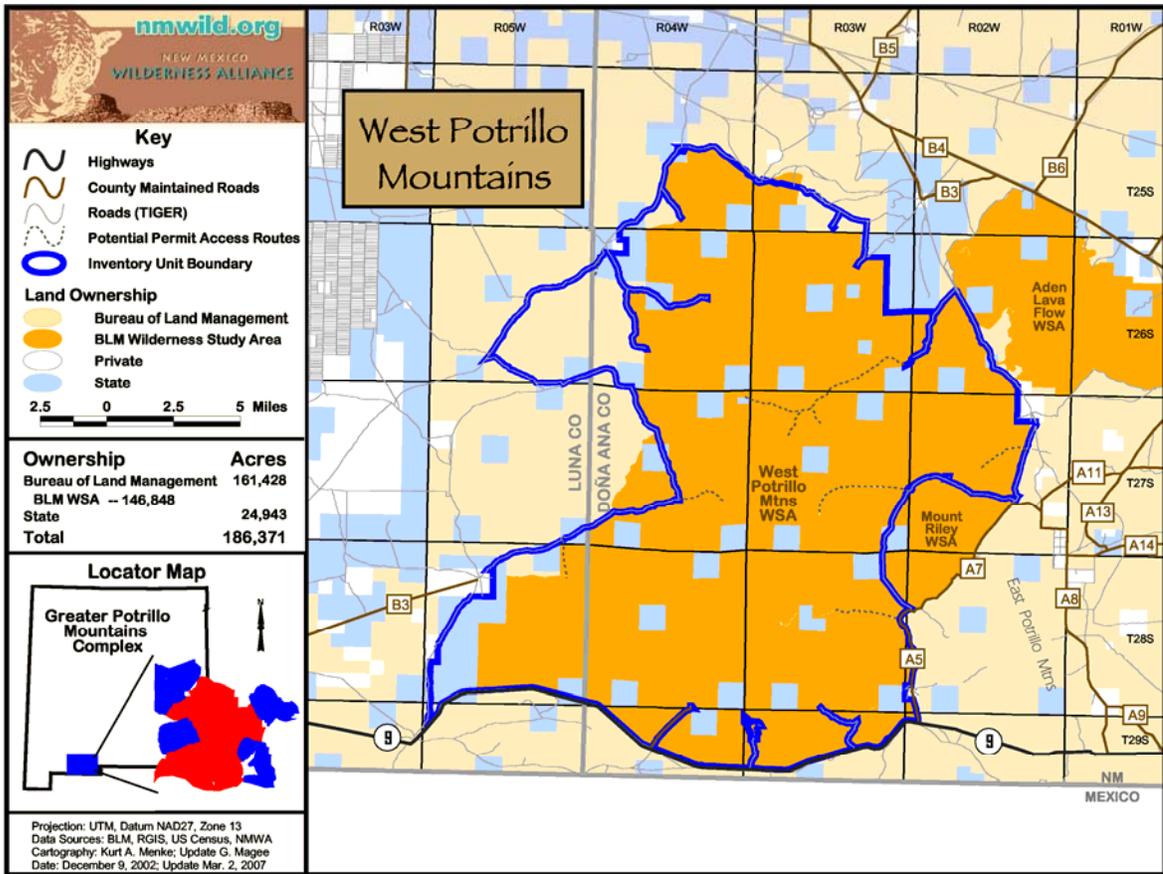
interstate. After about 2 miles, follow the gravel road as it curves away from the interstate. Continue on CR B005 from this point for about 8½ miles to the intersection of CR B004 at the railroad tracks. Cross over the railroad tracks here and turn left. Follow CR B004 and the RR tracks to the southeast for about 7 miles to the intersection of a road on the south. This route forms the western boundary of the Aden Lava Flow unit. The northeast part of the West Potrillo Mountains can be reached by following this side route southwest for about 7½ miles. The northern part of Aden Lava Flow can be explored by continuing southeast along the RR tracks and CR B004.

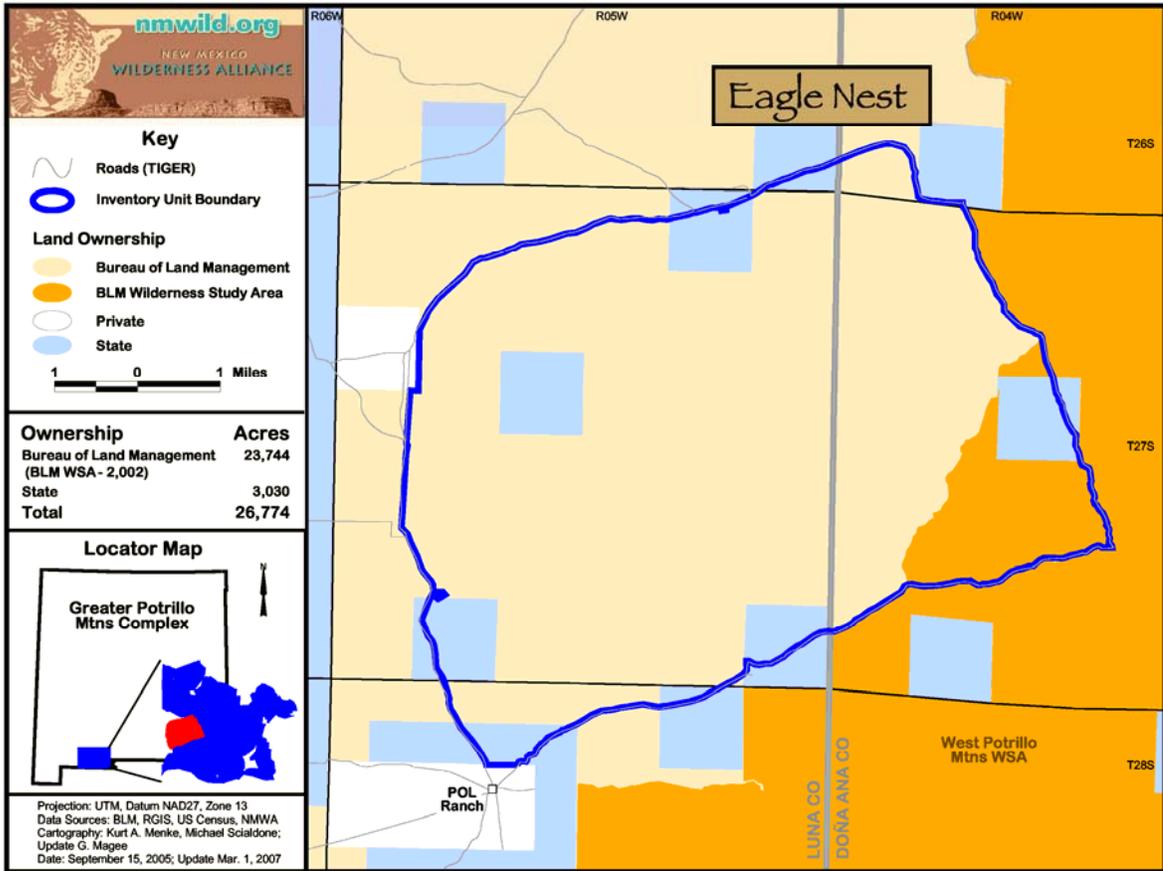
The USGS 7.5 minute maps that cover this complex are: Akela, Cambray, Mount Aden, Sibley Hole, X-7 Ranch, Mount Aden SW, Aden Crater, Afton, Mesquite Lake, POL Ranch, Potrillo Peak, Mount Riley, Kilbourne Hole, Coyote Hill, Camel Mountain, Guzmans Lookout Mountain, Mount Riley SE, and Potrillo.

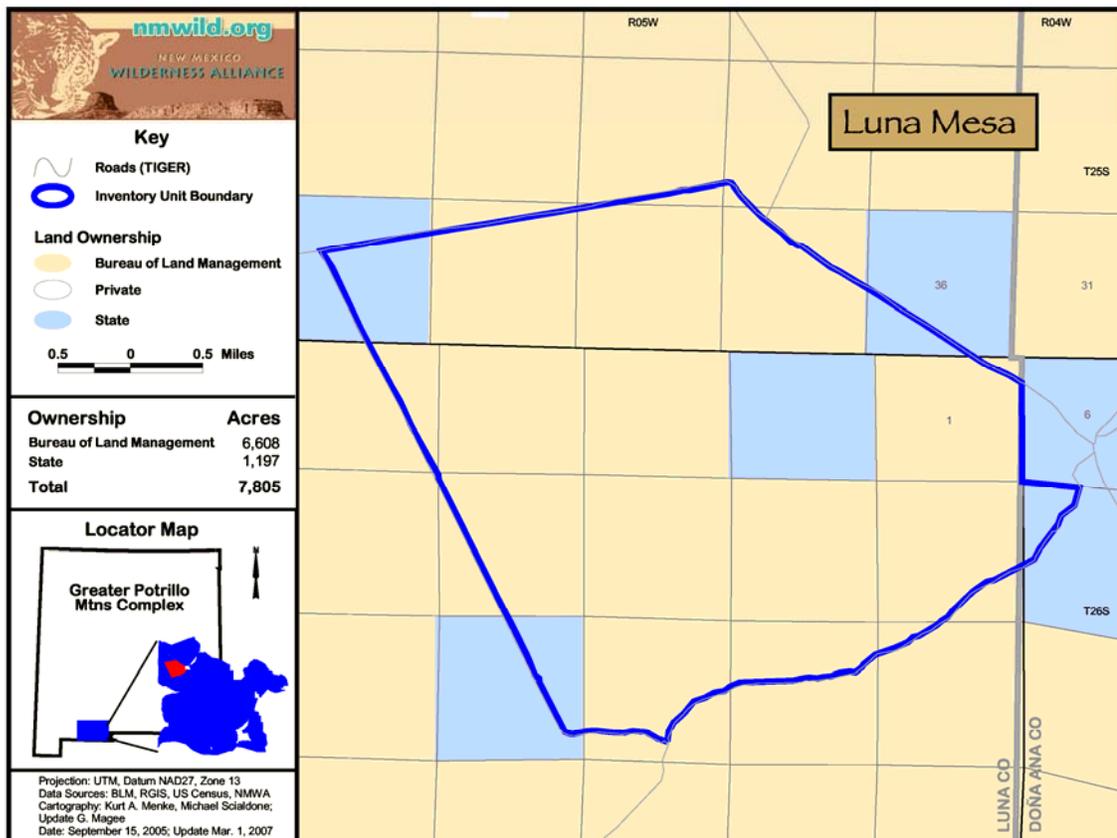
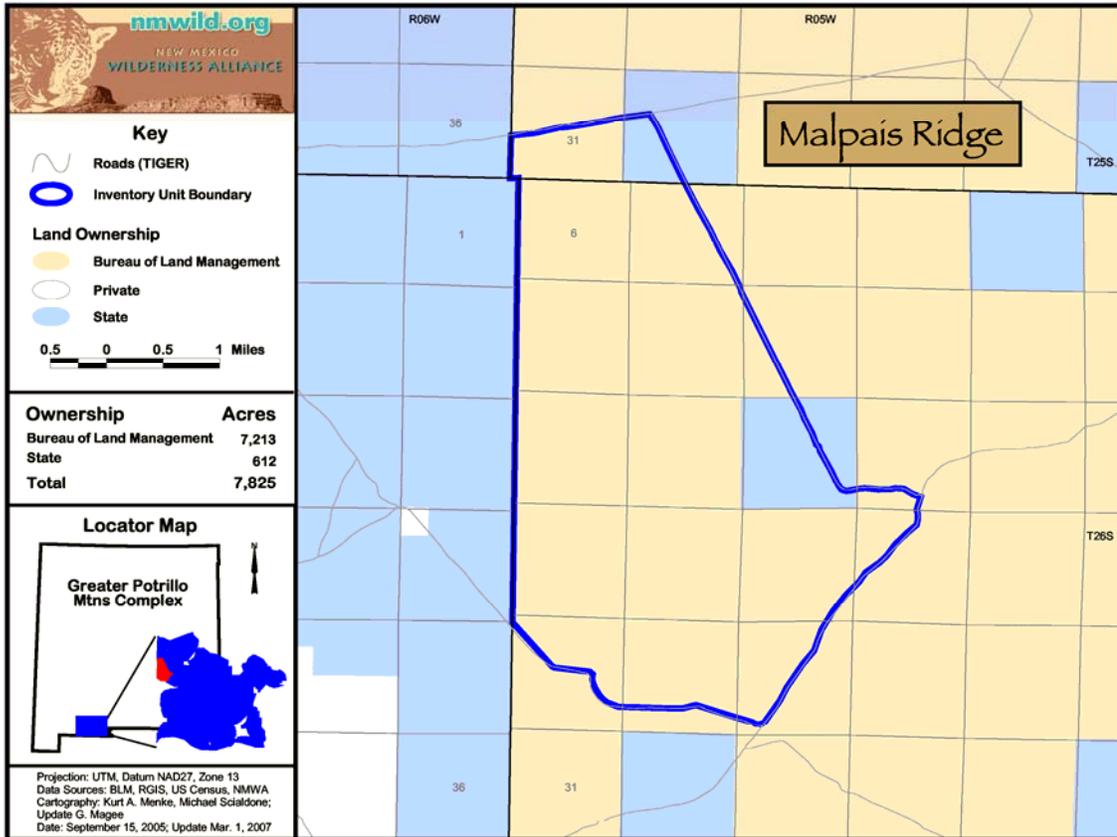


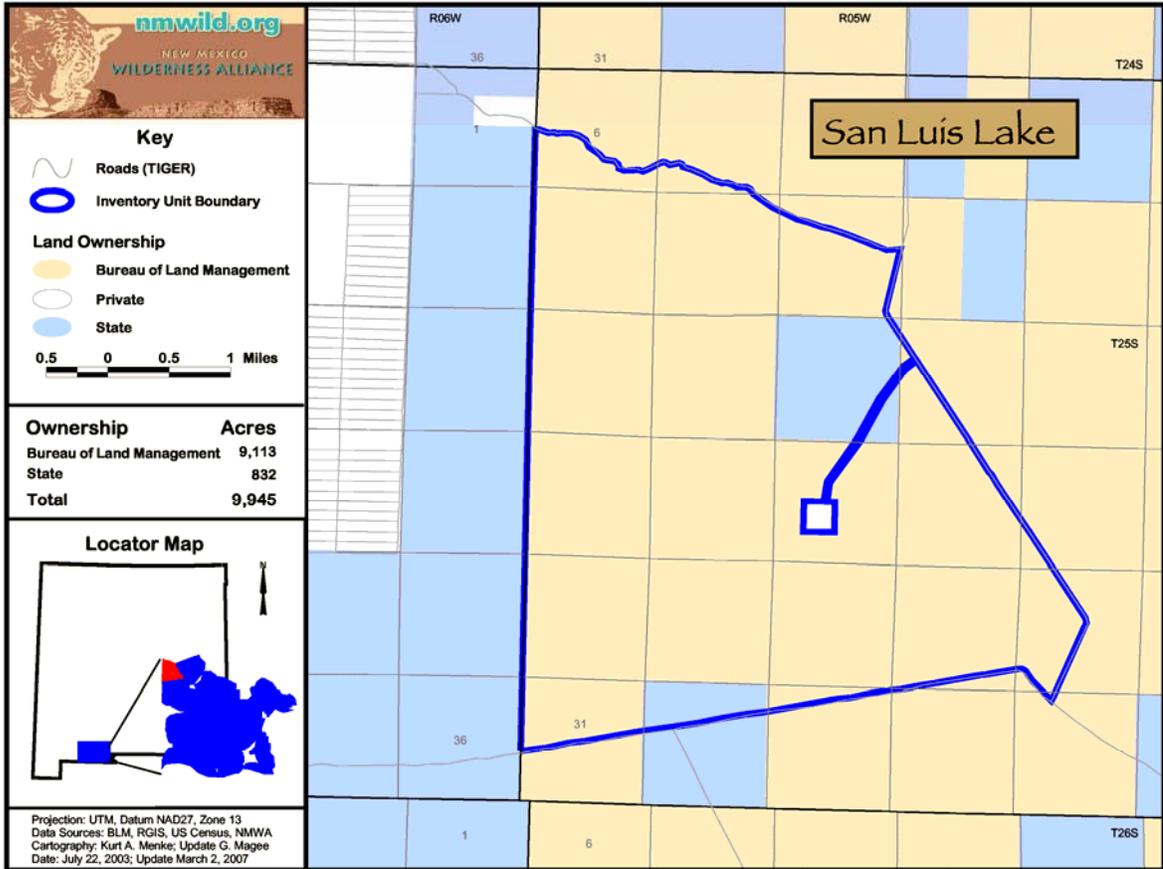


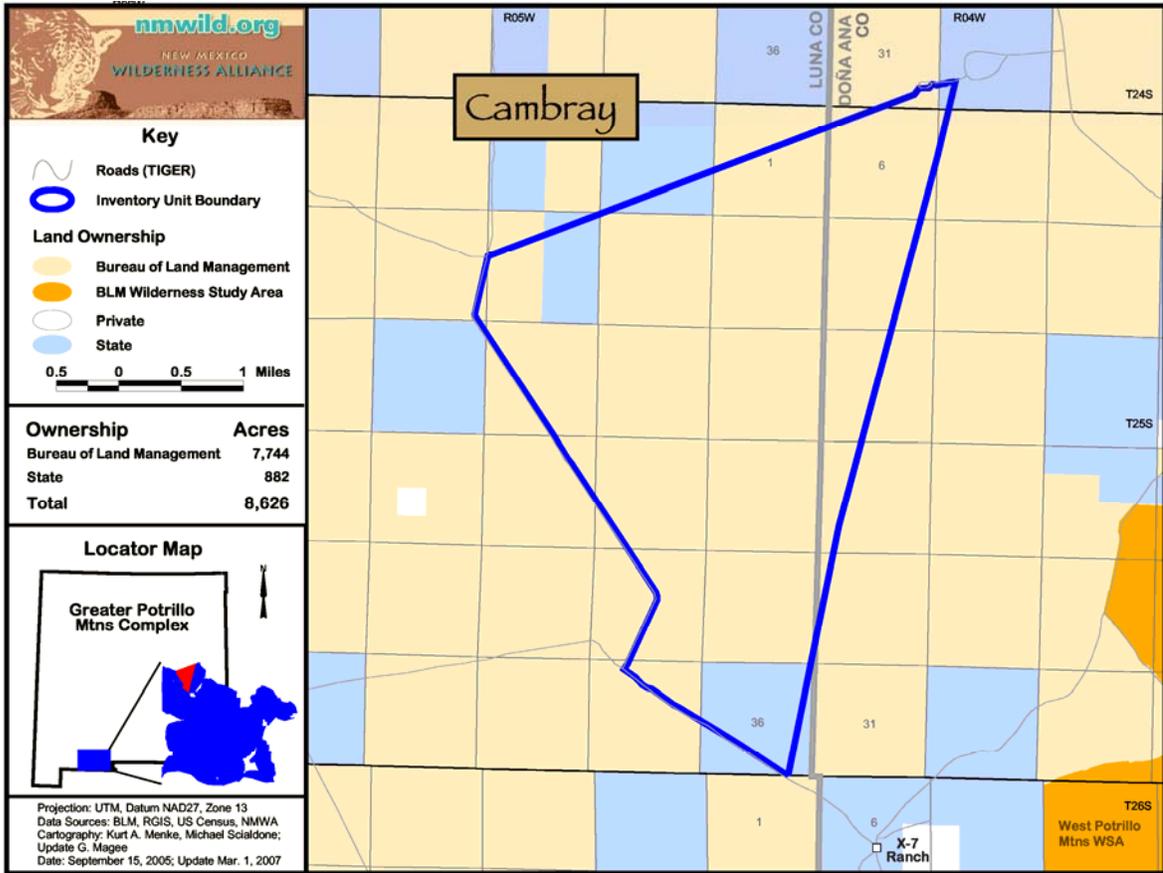


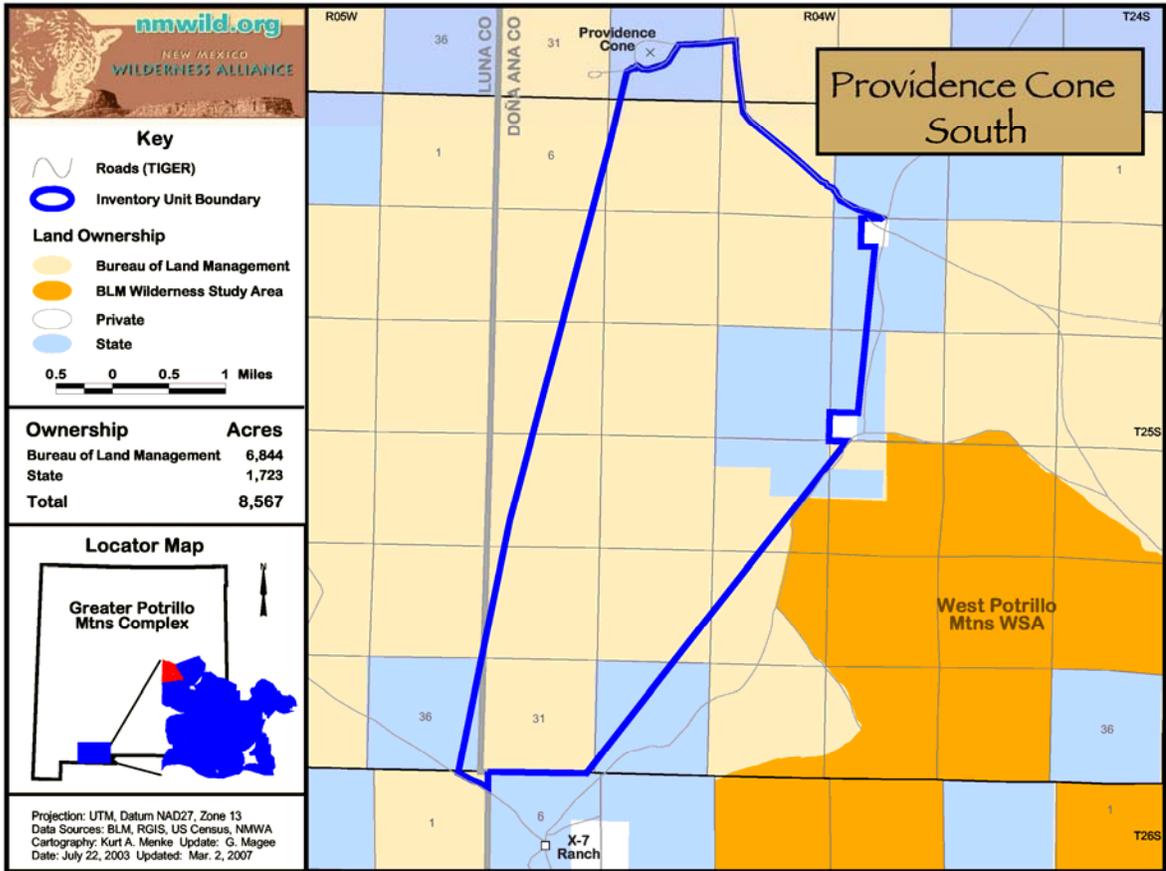




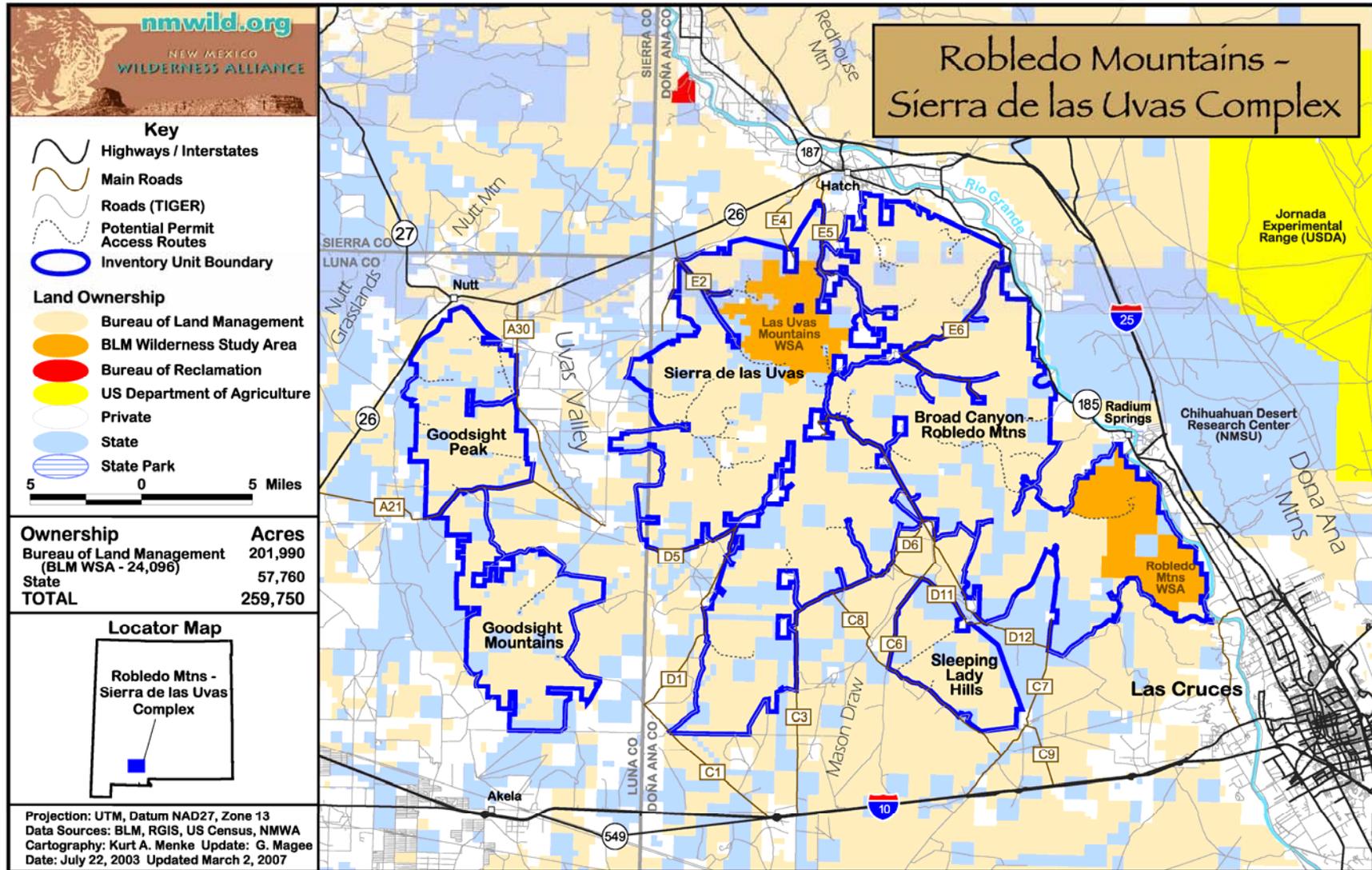








Robledo Mountains - Sierra de las Uvas Complex



Robledo Mtns – Sierra de las Uvas Complex



Area Description

The Robledo Mountains – Sierra de las Uvas Complex is located in northeastern Luna and northwestern Doña Ana Counties just northwest of Las Cruces. Highway 26 on the north and west, I-10 on the south, and the Rio Grande on the east roughly form the boundaries of the area. An incredibly diverse range of landscape forms and habitat types are found here: juniper-dotted volcanic mountains; dramatic limestone, igneous, and volcanic cliffs; remote grass-covered hills, mesas, and buttes; caves; deep and rugged ‘box’ canyons with riparian habitats; gentle alluvial fan slopes covered with grasses and shrubs; expansive desert

grassland swales; and creosote-dominated lowlands are all found in this exceptional wilderness complex. Elevations within the area range from a low of approximately 4,000 feet near the Rio Grande to over 6,000 feet on Magdalena Peak in the Sierra de las Uvas.



Ecological Values

The diversity of vegetation types found in this complex is exceptional. Juniper woodland, juniper savannah, and montane shrubs such as mountain mahogany, shrub live oak, and sumac are found in the higher elevations; desert shrub-cactus associations with plants like creosote, ocotillo, sotol, yucca, barrel cactus, penstemon, and lyreleaf greensages in the lower elevations; large areas of black grama grasslands on the mesas of the Sierra de las Uvas; expansive tobosa grass swales in some areas of the desert flats; arroyo riparian areas with plants like velvet ash, netleaf hackberry, soapberry, desert willow, wolfberry, sumac, and sacaton grass in the larger canyons of the area. The lush riparian zone along the Rio Grande is also adjacent to the complex. The Robledo Mountains support an unusually high diversity of cacti, including the State-endangered night-blooming cereus.

Pronghorn, mule deer, mountain lion, bobcat, coyote, bats, rock squirrels and other rodents, quail, and numerous other birds call this area home. The grasslands



found here are important to a declining grassland fauna and provide habitat for rare birds like the Aplomado falcon and Baird's sparrow. The abundance of cliffs in the mountains provides nesting and perching sites for many raptors, including bald and golden eagles, various hawks and owls, and the Federal-endangered peregrine falcon. Reptile diversity is also high; banded rock rattlers, Madrean alligator lizards, and Trans-Pecos rat snakes are all found here, as are other reptiles that reach the northern or western limits of their range.

The complex also contains important watershed values since canyons in the northern and eastern parts of the area direct rainfall to the Rio Grande. These canyons are also important corridors for the movement of animals from the desert areas to water sources along the river.



Scenic and Recreational Qualities

Scenic quality is exceptionally high within the Robledo Mountains - Sierra de las Uvas complex. Expansive vistas of the wild landscape are afforded from the mountaintops and ridges, while dramatic cliffs, 'box' canyons, and other impressive geologic features can be found throughout the complex. In addition, the Robledo Mountains are an important scenic view-shed for the people living in and traveling through the Rio Grande Valley to the east.

Though relatively close to Las Cruces, the nature and degree of human impacts in the Robledo Mountains – Sierra de las Uvas complex are quite minimal. Affected primarily by the forces of nature, the landscape here has retained its wild character and influence. Rugged terrain and large size also contribute to exceptional opportunities for visitors to enjoy a primitive wilderness experience. Recreational opportunities in the complex are numerous. The varied volcanic, igneous, and sedimentary

outcrops create outstanding opportunities for geological sight seeing as well as mountain and rock climbing, and day-hiking. Parts of the complex have open terrain leading to lonely mesas that provide excellent opportunities for backpacking and horseback riding. The varied features of the complex and the high quality of southern New Mexico sunlight, particularly at sunrise and sunset, provide outstanding opportunities for outdoor photography.

With the population of Las Cruces and El Paso projected to expand dramatically in the next several decades, protection of these remaining wildlands so close to these cities will safeguard a much-needed source of primitive recreation and quiet refuge for citizens of south-central New Mexico and west Texas.



Special Management Areas

Two Wilderness Study Areas (WSAs) are encompassed within this complex: Robledo Mountains and Las Uvas Mountains. BLM has also declared two Areas of Critical Environmental Concern (ACECs), one in the Robledo Mountains and the other in the Uvas Valley adjacent to the Goodstight Mountains unit. The former was designated in recognition of the biological, scenic, and recreational values found there; and the latter for its excellent example of black grama grassland. In addition, the Butterfield Trail Special Management Area protects the route of the historic overland trail through the area.

Cultural Values

Archaeological and historic resources are also rich in the Greater Robledo Mountains – Sierra de las Uvas Complex. At least 20 historic and prehistoric sites are known to occur within or adjacent to the Robledo Mountains WSA, including some of the earliest known prehistoric habitation sites in southern New Mexico.



Also included are several undisturbed pothouse villages, two Lithic Indian sites in Horse Canyon, and at least two excellent petroglyph sites in the Sierra de las Uvas. More prehistoric sites likely exist, but no comprehensive survey has taken place. In terms of more recent historic resources, Lookout Peak in the Robledo Mountains was the site of a heliograph station during the early 1880's, used by explorers to communicate with similar stations elsewhere about Apache activities. The historic Butterfield Trail also runs through the area.



Access Information

The Robledo Mountains – Sierra de las Uvas unit is accessible by several county roads. To reach the southwest portion of the Sierra de las Uvas, take I-10 exit #116, 25 miles west of Las Cruces. Drive north on CR C001 northwest from the interstate for about 8 miles and turn right onto CR D001. Approximately 10 miles to the northeast, CR D001 intersects with CR D005, which runs to the west. The unit lies to the east of CR D001 and to the north of CR D005.

The south-central portion of the Sierra de las Uvas is accessed by CR D012. This is a paved road that leads to the towers on top of Magdalena Peak and creates a long cherry-stem in the inventory area. To get to CR D012, take the Airport exit #131 and travel west along the frontage road for 4 miles to Corralitos Ranch Road, CR C009, and turn right. Take CR C009 north for about 3 miles, then turn right onto CR C007 at the Corralitos Ranch Headquarters. Take CR C007 north for 3½ miles, then turn left on CR D012. In 3 miles to the west, CR D011 comes in on the left. The Sleeping Lady Hills unit is about a mile south from here and can be accessed by CR D011. The paved CR D012 goes on to the west through a pass in the Rough and Ready Hills, then curves to the northwest and continues about 8 miles to the base of the Sierra de las Uvas.

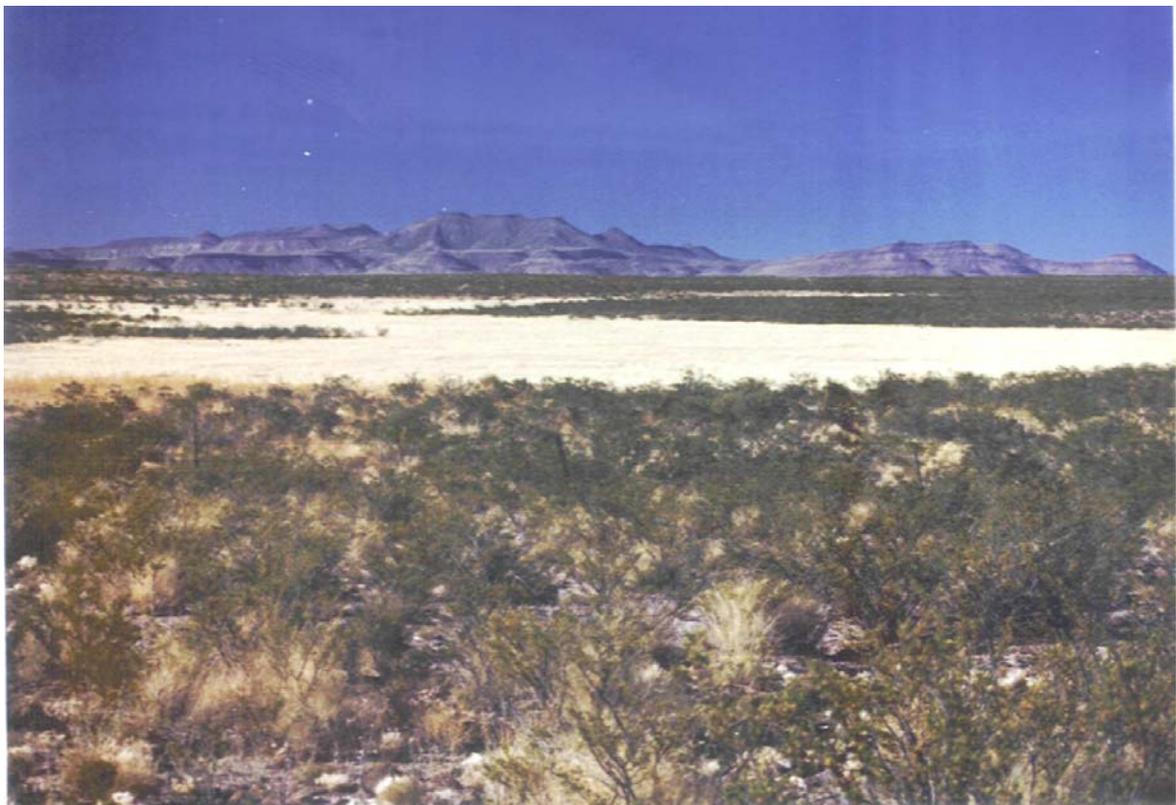
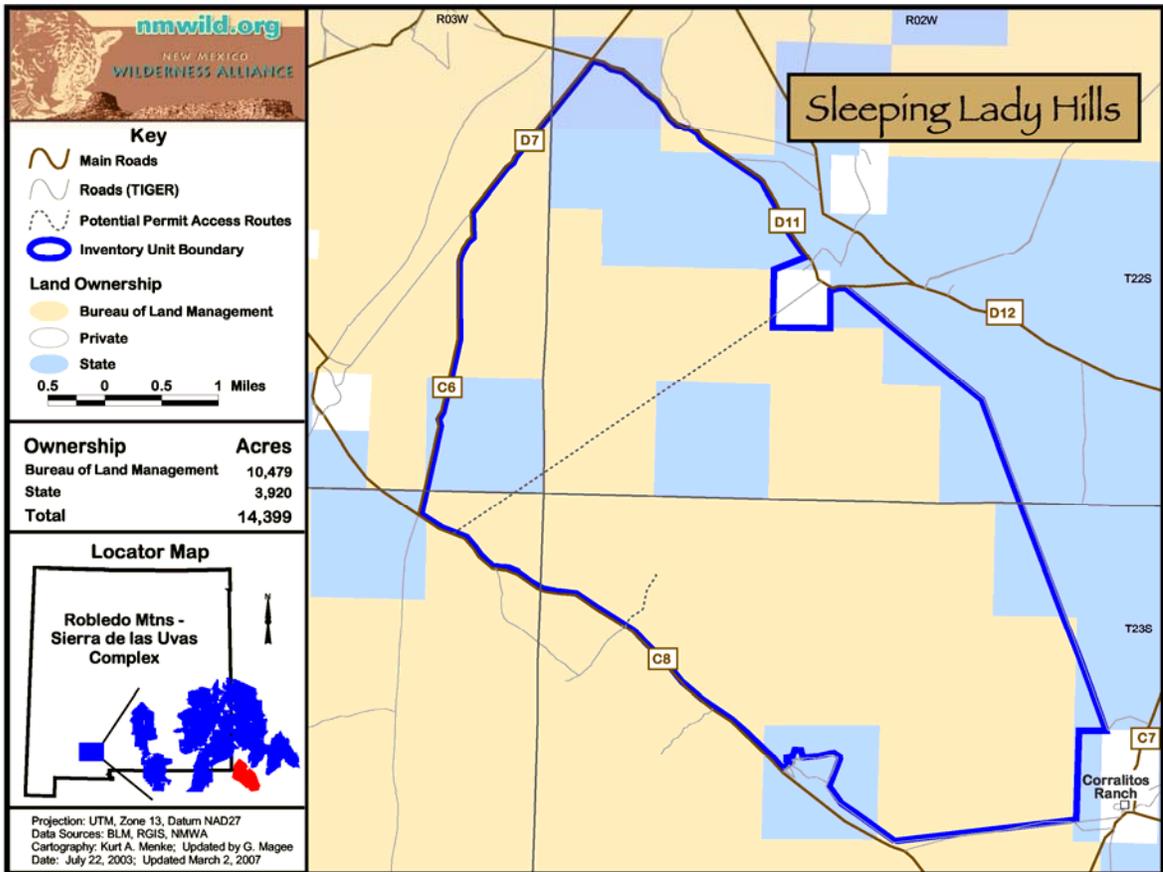
The northeast part of the Sierra de las Uvas is accessed by CR E006. To reach CR E006, take exit #19 off of I-25, about 14 miles north of Las Cruces. Go west on Highway 157 for 1½ miles to Highway 180. Turn right on 180 and go north along the river for about 12 miles, then turn left on CR E006, ¼ mile north of the Border Patrol Check Point.

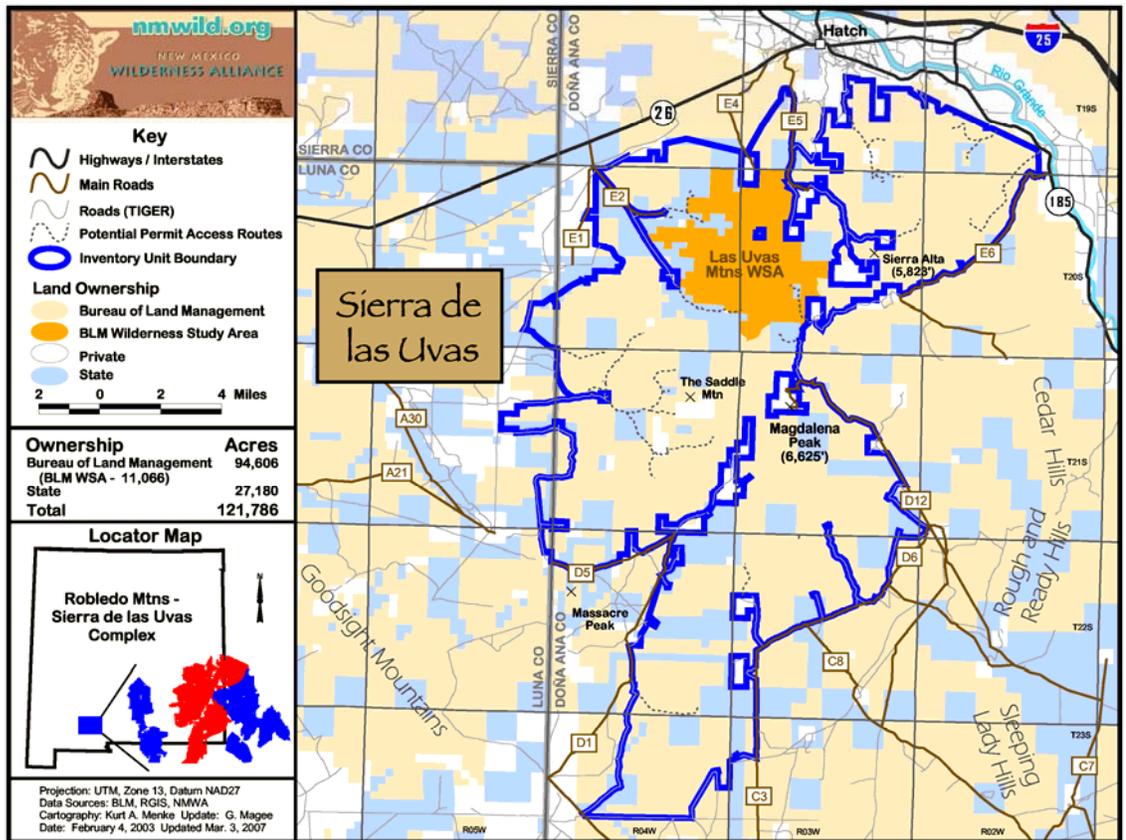
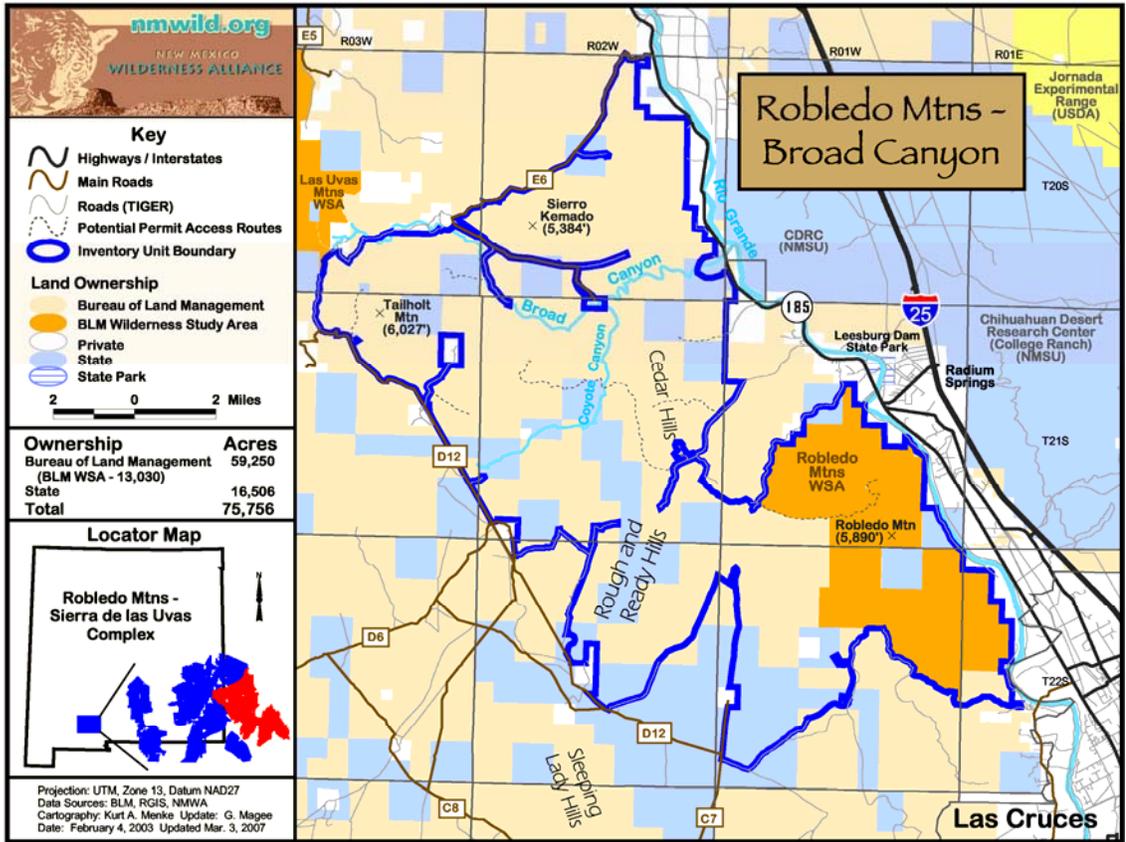
The north and northwest parts of the Sierra de las Uvas are accessed by CR E004 and CR E002. From Hatch, take Highway 26 southwest toward Deming. Both maintained gravel roads come in on the south side of the highway: CR E004 is approximately 2 miles southwest of Hatch, and CR E002 is about 8 miles southwest of Hatch.

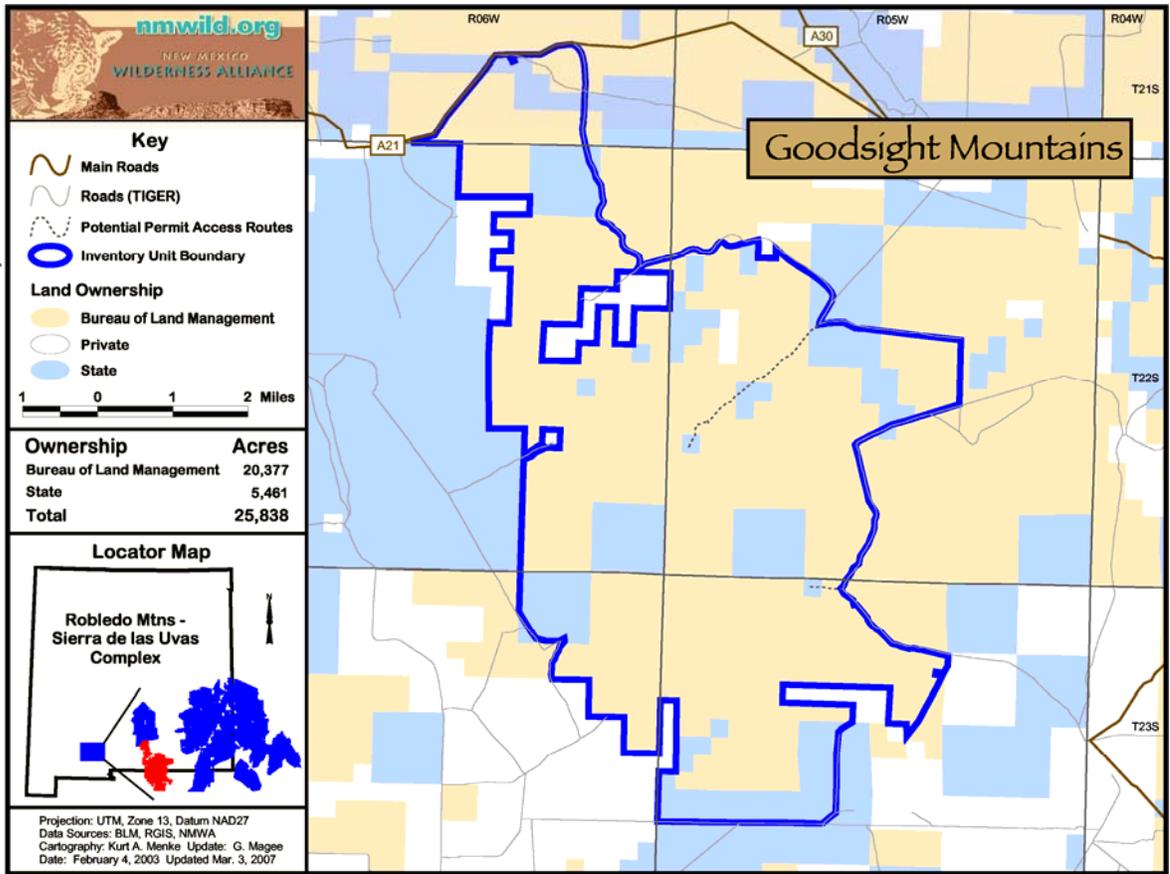
To get to the Good sight Peak and Good sight Mountains units, drive northeast from Deming on Highway 26 for 17 miles (or 10½ miles southwest from Nutt) and look for Barksdale Road, CR A021, on the east side of the highway. Drive east on CR A021 for about 8 miles where Good sight Peak is on the north side of the road, and Good sight Mountains are on the south. The Good sight Peak unit also lies a short distance south of Highway 26 at a point 29 miles northeast of Deming and 18 miles southwest of Hatch.

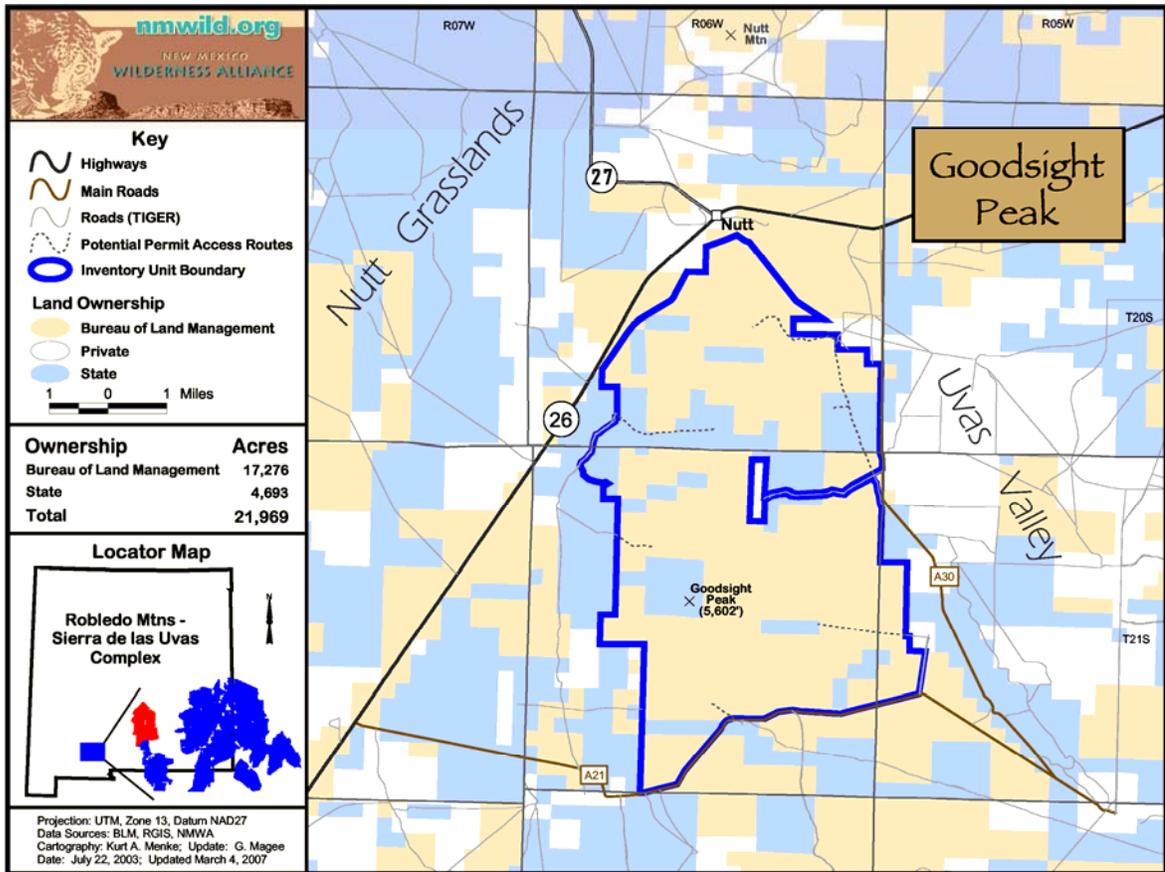
The USGS 7.5 minute maps that cover this complex are: Hatch, Rincon, Hockett, Souse Springs, Sierra Alta, Selden Canyon, Good sight Peak NE, Magdalena Peak, Rough and Ready Hills, Leasburg, Doña Ana, Lazy E Ranch, Magdalena Gap, Sleeping Lady Hills, Picacho Mountain, and Las Cruces.



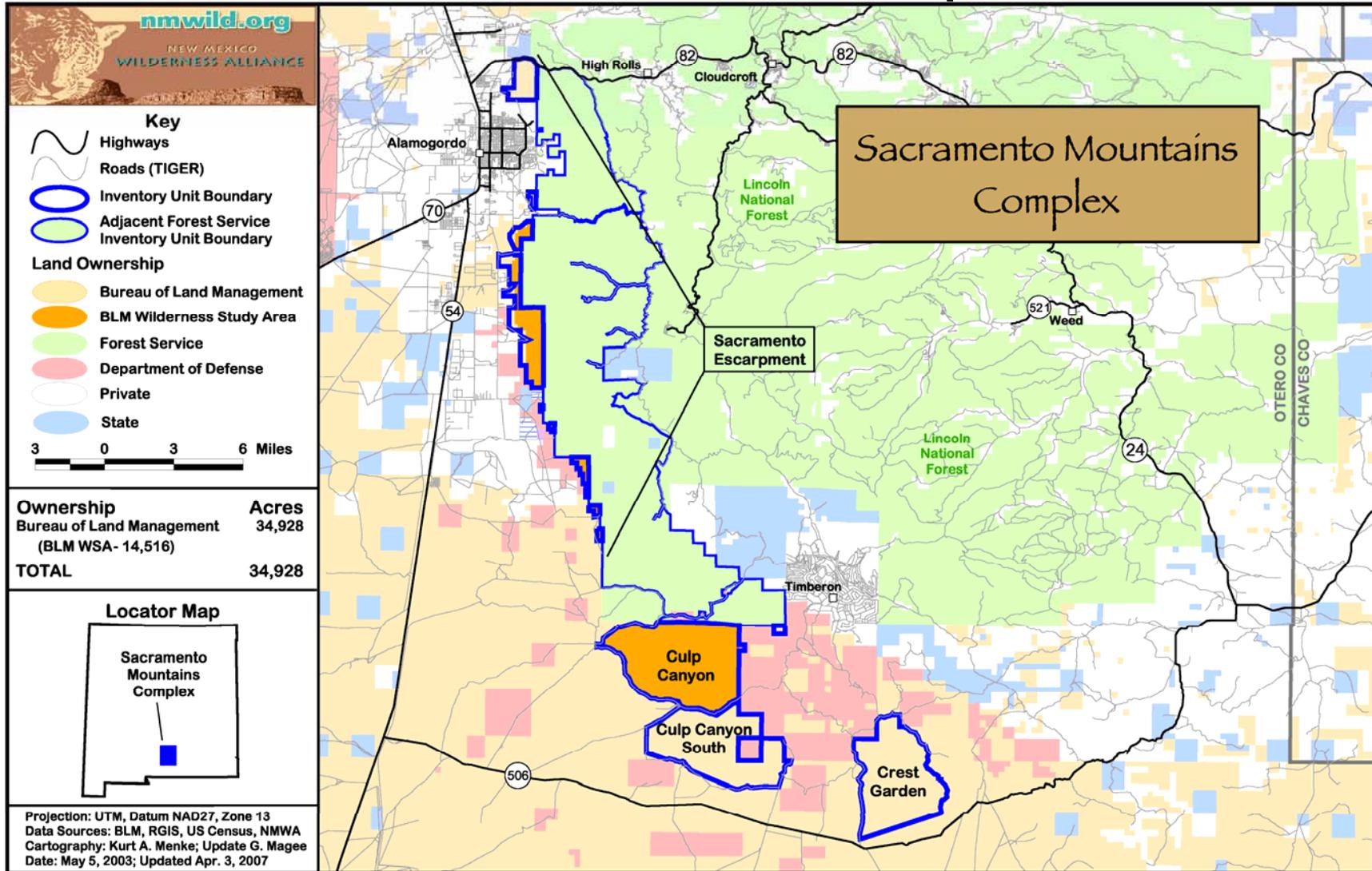








Sacramento Mountains Complex



Sacramento Mountains Complex



Area Description

The Sacramento Mountains are located in Otero County just to the east and southeast of Alamogordo. The highest elevations in the area are managed by the US Forest Service. The southern part of the complex is part of McGregor Range, a military reservation that is jointly managed by BLM and the US Army. The Sacramento Escarpment, which rises over 4,000 feet above the Tularosa Valley to an elevation of 8,100 feet, is one of the more spectacular topographic features in the state. Composed of deep, rugged canyons and high, remote spires, cliffs, and ridges made of sedimentary rock, primarily limestone, it is widely known for its scenic beauty. Perennial springs and streams are found in many of the canyons in the Escarpment. To the south, on McGregor Range, the mountains encompass lower elevation terrain, with gently rolling hills to

steep, rounded mountains. Broad canyons and arroyos that flow only after heavy rainfall drain this area into the closed drainage basin of the Tularosa Valley.



Ecological Values

The Sacramento Mountains are truly a 'sky island' and biotic diversity is high due to the differences in elevation, slope, temperature, and precipitation. The presence of permanent water in some of the canyons adds to the area's ecological value.

Chihuahuan desert shrubs and grasslands dominate the lower elevations, while mountain shrubs, pinyon - juniper woodland, and ponderosa pine can be found at higher elevations. There are at least 18 rare plant species located in or near the Sacramento Escarpment unit according to the New Mexico State Heritage Program (1984). Some of these include Sacramento prickly poppy, Alamo penstemon, button cactus, and Villard's pincushion cactus. Larger



drainages and canyons contain relatively dense arroyo-riparian vegetation with Fremont cottonwood, Arizona ash, netleaf hackberry, and desert willow.

The southern extension of the Sacramentos provides a critical wildlife corridor, or biotic linkage, between the Sacramento Mountains to the north and the Guadalupe Mountains and greater Otero Mesa area to the south and southeast. These mountains are home to black bear, elk, mountain lion, bobcat,

turkey, and many other animal species. There is a particularly large and healthy deer herd here and cliffs provide suitable habitat for desert bighorn sheep and nesting raptors such as the peregrine falcon. The gray vireo may also occur in the area. Pronghorn are present in the grasslands in the southern portion of the area, and Black-tailed prairie dogs are likely present. These grasslands also provide habitat for Aplomado falcons.





Scenic and Recreational Qualities

Scenic quality in the Sacramento Mountains is excellent. The cliffs and spires along the Escarpment itself are spectacular, while the vegetation, perennial water, color, and desert scenery only add to the area's uniqueness. The BLM Sacramento Escarpment ACEC was designated in part to protect the scenic values of the Sacramento Escarpment. In the southern part of the area, the rolling hills and mountains are more subtle. Yet there is a unique appeal to their curved and rounded shapes, their blonde, grass-covered color, and truly rugged and wild character. From atop ridges and peaks in the area, one gains awe-inspiring views in all directions. This gives not only a sense of immense space, but also a visual connection between the Sacramento Mountains and the greater Otero Mesa landscape to the south.

Recreational opportunities include hunting, photography,

hiking, rock climbing, backpacking, horseback riding, botanizing, rock hounding, and archaeological sightseeing. As the nearby city of Alamogordo continues to expand at a rapid pace, the Sacramento Mountains complex provides urban dwellers with primitive recreational opportunities that, in many places in the southwest, no longer exist due to urbanization into once wild areas. Although only a short drive from Alamogordo, the primeval nature of the Sacramento Mountains complex provides visitors with a wilderness experience and primitive recreational opportunities of the highest order.



Special Management Areas

Two Wilderness Study Areas (WSAs) are located in this complex: Culp Canyon and Sacramento Escarpment. They are both contiguous with USFS RARE II lands, resulting in larger, more diverse roadless units. The Sacramento Escarpment has also been designated an Area of Critical Environmental Concern (ACEC) for their scenic quality and the presence of special-status species. McGregor Range is unique in that it is jointly managed by the BLM and the US Army.



Cultural Values

There are cultural remains in the Culp Canyon unit that span at least 12,000 years. The 22 known sites, which are primarily lithic scatters, hearths, and middens, include structures and artifacts from the Paleo-Indian, Archaic, Jornada Mogollon, Apache, and Anglo-American periods. Ten of the sites may be eligible

for National Register status. Other archeological sites are known to exist in the complex, but have not been cataloged.



Access Information

The lower elevations of the Sacramento Escarpment unit can be reached from Highway 54 south of Alamogordo. From the junction of Highway 70, drive south on 54 for about 5 miles to the intersection of Taylor Road, CR A019, on the east. Turn left on to CR A019 and head southeast for about 2 miles to where Taylor Road makes a sharp turn to the south. Several un-maintained dirt roads head east from this main north-south road and reach the western boundary of the unit. Oliver Lee State Park is another great way to access the western boundary of the Sacramento Escarpment unit. Head south on Highway 54 from the junction of Highway 70 for about 9 miles, then turn left on Dog Canyon Road, CR A016, and drive 4 miles east to the state park.

The eastern boundary of the Sacramento Escarpment unit is accessed from the West Side Road, CR A061. This road intersects Highway 82 at High Rolls, which is about 9 miles east of Highway 54/70. CR A061 turns into Forest Road #90 as it heads south from Highway 82 and crosses mostly higher elevation Forest Service land.

The southern part of the Sacramento Mountains complex is accessed off of State Route 506. NOTE: The Culp Canyon, Culp Canyon South, and Crest Garden units are located on McGregor Range. To reach these units, visitors are required to obtain a "Recreational Pass" from Fort Bliss. Areas to the south of 506 are off-limits to visitors, while the entire Range, including State Route 506, is subject to closure from time to time for military operations. Passes are usually available at the Las Cruces BLM office (505-525-4300). Call ahead for

information before attempting to access McGregor Range.

Turn east off of Highway 54 at the intersection of State Route 506, which is about 25 miles south of Alamogordo and 60 miles north of El Paso. Drive on 506 east for a little over 6 miles to the intersection of a dirt road on the left. This road heads to the northeast and reaches another road junction in about 7½ miles. The Culp Canyon South unit is to the south and east of this junction; the Culp Canyon unit is to the north.

Approximately 21½ miles east of Highway 54, another dirt road intersects State Route 506 from the north. This road forms the western boundary of the Crest Garden unit.

The USGS 7.5 minute maps that cover this complex are: Alamogordo North, High Rolls, Alamogordo South, Sacramento Peak, Deadman Canyon, Bus Scuffle Canyon, Rogers Ruins, Culp Canyon, El Paso Canyon, Surveyors Canyon, El Paso Draw, and Sixteen Canyon.



